

**5 What is claimed is:**

1. In a device for bi-directionally communicating with a remote site, a method for providing warning of impaired communication, comprising the steps of:  
retrieving a communication parameter value from memory;  
10 comparing said retrieved parameter with a predetermined threshold to identify an excessive communication parameter value indicative of a potential communication link impairment; and  
initiating substantially periodic transmission of a message to said remote site indicating a system adjustment is necessary, in response to said comparison.

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2. A method according to claim 1, wherein  
said message includes said parameter value.

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3. A method according to claim 1, wherein  
said parameter represents transmission upstream power level for communicating from said device to said remote site.

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4. A method according to claim 1, wherein  
said device is a cable modem and said transmission uses simple network management protocol(SNMP), and including the step of  
comparing said retrieved parameter with minimum and maximum predetermined threshold values.

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5. A method according to claim 1, including the step of  
receiving said predetermined threshold value from said remote site.

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6. A method according to claim 5, including the step of  
using a default predetermined threshold value prior to said receiving of said predetermined threshold value from said remote site.

7. A method according to claim 5, including the step of  
configuring said device with said received predetermined threshold during an initialization operation.

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5           8. A method according to claim 1, wherein  
said step of initiating substantially periodic transmission of said message  
comprises initiating transmission on one of, (a) a schedule, and (b) a repetition  
frequency, received from said remote site.

10           9. A method according to claim 1, including the step of  
using default schedule or repetition frequency values prior to receiving  
said schedule or repetition frequency values from said remote site.

15           10. A method according to claim 1, including the step of  
terminating transmission of said message upon said comparison step  
indicating said retrieved parameter no longer exceeds said predetermined threshold.

20           11. A method according to claim 1, including the step of  
displaying at least one of, (a) said parameter, (b) said predetermined  
threshold and (c) repetition frequency of said periodic transmission, in response to  
User command.

25           12. A method according to claim 11, including the step of  
generating a web page for said displaying of said at least one of, (a) said  
parameter, (b) said predetermined threshold and (c) repetition frequency of said  
periodic transmission.

30           13. In a device for bi-directionally communicating with a remote site, a  
method for providing warning of impaired communication, comprising the steps of:  
retrieving a communication parameter value from memory;  
comparing said retrieved parameter with a predetermined threshold to  
identify an excessive communication parameter value indicative of a potential  
communication link impairment; and  
initiating substantially periodic transmission of a message including said  
35 parameter value to said remote site indicating a system adjustment is necessary, in  
response to said comparison.

40           14. A method according to claim 13, including the step of  
receiving said predetermined threshold value from said remote site.

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15. A method according to claim 13, wherein  
said parameter represents transmission upstream power level for  
communicating from said device to said remote site.

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16. In a modem device for bi-directionally communicating with a  
remote site, a method for providing warning of impaired communication, comprising  
the steps of:

retrieving a transmission power level value from memory;

comparing said retrieved transmission power level value with a

15 predetermined threshold to identify an excessive transmission power level value  
indicative of a potential communication link impairment; and

initiating substantially periodic transmission of a message including said  
transmission power level value to said remote site indicating a system adjustment is  
necessary, in response to said comparison.

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17. A method according to claim 16, including the step of

terminating transmission of said message upon said comparison step  
indicating said transmission power level value no longer exceeds said predetermined  
threshold.

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